Naval Aviation Selection Tools Development

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The Internet availability of a computer version of the Aviation Selection Test Battery (ASTB) would dramatically improve Navy/Marine Corps aviator selection test administration and would also provide fertile ground for the development of new prediction criteria. The paper-and-pencil ASTB is taken by approximately 10,000 examinees annually at over 200 sites around the world. This volume of remote testing makes the ASTB an ideal candidate for a client/server test system. While computerized tests have become increasingly capable and more prevalent, network applications are currently in their infancy. Some potential advantages of computerized, network-based testing include reduced test time, immediate score reporting, reduced processing costs and errors, and increased flexibility for introducing new test items.

Phase I of the project determined the equivalence of the pencil-and-paper and computerized ASTB, examined the Internet feasibility and the client/server options needed to meet operational requirements, and developed possible alternate test items. Phase II has involved converting the ASTB to the chosen network system and the experimental validation of the computerized version of the test. Flight performance criterion data are also being collected during this phase. The final phase of the project will comprise an evaluation, involving the testing of subjects at remote sites over the network, final validation of the test data from Phases I and II, and the evaluation of alternate-use scenarios and test site/server requirements. The end product will be an operational computer-based client/server model that can be fully transitioned to recruiting districts and managed at the current ASTB administration site, the Naval Operational Medical Institute.

